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09/848,642	05/03/2001	Shunpei Yamazaki	SEL 258	7227

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EXAMINER

SCHECHTER, ANDREW M

ART UNIT	PAPER NUMBER
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2871

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/848,642	Applicant(s) YAMAZAKI ET AL.	
	Examiner ANDREW SCHECHTER	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-24, 76, 77 and 85-102 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-24, 76, 77, 85-90, 93, 94, 97 and 98 is/are allowed.
- 6) ☒ Claim(s) 91, 92, 95, 96 and 99-102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4 December 2008 have been fully considered but they are not persuasive. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues [p. 11] that the amendments to claims 91 and 92 are supported by Figs. 15 and 16. This is not persuasive, as discussed below in the rejections under 35 USC 112.

The applicant argues [pp. 11-12] that the recited limitations are not met by *Sakamoto* and the other cited references, which is correct given the claim interpretation assumed below. The previous prior art rejections are therefore withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 91, 92, 95, 96, and 99-102 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 91 and 92 recite "a second insulating film over said semiconductor layer, the source region, the drain region and the second wiring, wherein the second insulating film is in contact with the channel formation region". This is possibly unclear. In the

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context of the layered structure of the invention, term "over" could be taken to mean "on a layer higher than but not necessarily overlapping" or "on a layer higher than and overlapping at least partially". Generally the later interpretation is used. Which does the applicant intend here?

In the context of Fig. 16, the "second insulating film" could be the orientation film [1009], which would satisfy the usual, latter interpretation. However, it is possible that the applicant intends the "second insulating film" to be satisfied by the unlabelled trapezoidal element (presumably a doping mask) on top of the channel region in Fig. 15, in which case it would not satisfy the usual, latter interpretation, but only the looser, former interpretation, since the element does not overlap the source region, drain region and second wiring. The examiner notes that this would be a very problematic interpretation, since the source and drain regions are only clearly identified for the embodiment of Fig. 16; Fig. 15 does not appear to have source and drain regions formed over the semiconductor layer. Also, the applicant's statements that the amendment distinguishes over *Sakamoto* would not make sense, since *Sakamoto* discloses an analogous doping mask to that shown in Fig. 15. Therefore, for examining purposes, it is assumed that the usual, latter interpretation of "over" is being used with respect to this claim limitation, and Fig. 16 rather than Fig. 15 shows support for this limitation.

Claims 91 and 92 are rejected as unclear until the applicant confirms the examiner's assumed interpretation. The other claims depend from claims 91 and 92, so they are rejected as well.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 91, 92, 95, 96, and 99-102 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 91 and 92 each recite the new limitation "a second insulating film over said semiconductor layer, the source region, the drain region and the second wiring, wherein the second insulating film is in contact with the channel formation region". This evidently refers to the orientation film 1009 in Fig. 16. There is, however, no such second insulating layer in the (different) embodiment of Fig. 15. Instead, Fig. 15 shows an unlabelled trapezoidal element (presumably a mask for doping) over the semiconductor layer and in contact with the channel formation region, but this element is not over the source region, drain region and the second wiring; "over" being understood as discussed above.

At the same time, claims 91 and 92 recite "the source wiring electrically connected to said source region through a second wiring, wherein the first insulating film is formed on said source wiring". This is shown in Fig. 15 [more-or-less: the claim

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language would need to be stretched to have a source region formed over the semiconductor layer in Fig. 15], but is clearly not present in the embodiment of Fig. 16.

Thus, claims 91 and 92 recite a combination of features cobbled together from two different embodiments. The examiner does not see any specific support in the text of the specification for the inventions of claims 91 and 92. The specification therefore does not reasonably convey that the applicant had possession of the claimed invention at the time of filing, so claims 91 and 92 are rejected.

The other claims depend from claims 91 and 92, so they are rejected as well.

Allowable Subject Matter

6. Claims 21-24, 76, 77, 85-90, 93, 94, 97, and 98 are allowed.
7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the electro-optical device of claim 21, in particular the limitations reciting the following electrode structure: a gate electrode and source wiring, first insulating film formed on them, semiconductor layer formed over the first insulating film, second insulating film covering the semiconductor layer, and gate wiring (connected to gate electrode) and connection wiring (connecting source wiring to semiconductor layer) formed on the second insulating film. Claim 21 is therefore allowed, as are its dependent claims 22-24, 88-90, 93, and 97.

The prior art does not disclose the electro-optical device of claim 76, in particular the limitations reciting the same electrode structure discussed above with respect to

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claim 21. Claim 76 is therefore allowed, as are its dependent claims 77, 85-87, 94, and 98.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Schechter/
Primary Examiner, Art Unit 2871
Technology Center 2800
23 January 2009